

REMARKS/ARGUMENTS

This paper is responsive to the Office Action mailed December 15, 2006. Claims 1 and 14 have been amended. Twenty-two claims remain pending: claims 1-22.

Claims 1, 2, 4-9, and 14-22 were rejected under 35 U.S.C. §103(a) as being unpatentable over United States Patent No. 6,789,154 to Lee et al. (hereinafter "Lee") in view of United States Patent No. 6,266,072 to Koga et al (hereinafter "Koga"). Claim 3 was rejected under 35 U.S.C. §103(a) as being unpatentable over Lee in view of Koga and in further view of U.S. Patent No. 5,790,849 to Crocket et al. (hereinafter "Crocket"). Claim 10 was rejected under 35 U.S.C. §103(a) as being unpatentable over Lee in view of Koga and in further view of U.S. Patent Application No. 2004/0179007 to Bower et al. (hereinafter "Bower"). Claims 11-13 were rejected under 35 U.S.C. §103(a) as being unpatentable over Lee in view of Koga and in further view of U.S. Patent No. 6,078,339 to Meinerth et al. (hereinafter "Meinerth").

Reconsideration of the claims in view of the above amendments and the following remarks is respectfully requested.

Rejection of Claims under 35 U.S.C. §103

Claims 1, 2, 4-9, and 14-22

Claims 1, 2, 4-9, and 14-22 were rejected under 35 U.S.C. §103(a) as being unpatentable over United States Patent No. 6,789,154 to Lee in view of Koga.

Independent claims 1 and 14 have been amended, and Lee and Koga, either alone or in combination, fail to disclose or suggest each of the feature recited in the independent claims. For example, claim 1 recites, in part:

receiving, on the bridge after activating the broadcast aperture, a set of data via the broadcast aperture; and

creating, by the bridge in response to receiving the set of data via the broadcast aperture, a plurality of unicast memory requests, each unicast memory request corresponding to one of the plurality of graphics devices, wherein each of the plurality of unicast memory requests includes a destination memory address that is determined by:

stripping off a set of high order bits from a memory address associated with the set of data; and

substituting a set of high order bits associated with a physical memory address of one of the plurality of graphics devices.

The cited references, either alone or in combination, fail to disclose or suggest at least a bridge configured to create a plurality of unicast memory requests in response to receiving a set of data via a broadcast aperture as recited in claim 1.

The Office Action admits that Lee fails to teach a broadcast aperture as recited in claim 1 and instead relies upon Koga to teach such a feature. However, neither Koga nor Lee teaches at least creating a plurality of unicast memory requests in response to receiving data via a broadcast aperture, where a destination address of the unicast memory request is determined by "stripping off a set of high order bits from a memory address associated with the data" and "substituting a set of high order bits associated with one of the plurality of graphics devices" as recited in claim 1.

Koga merely discloses that a memory and bus controller broadcasts graphics commands received from the CPU to all rendering devices. Koga, however, is silent as to the method by which the memory and bus controller addresses graphics commands received from the CPU to each of the individual rendering devices coupled to the system bus. See Koga, Fig. 1, and col. 3, lines 40-45. Koga, therefore, is also silent as to determining a destination address for a unicast memory request, let alone determining the destination address by stripping of a set of high level bits from a set of data received via a broadcast aperture and substituting a set of high level bits associated with a graphics device as recited in claim 1.

Furthermore, Lee merely discloses a router that uses a memory map to determine a destination address for memory requests to a graphics process. The memory map merely provides a mapping that associates a set of virtual addresses with one or more sets of physical memory addresses. Thus, the router can determine destination address in graphics memory associated with a virtual memory address using the system memory map. See Lee, Fig. 3, and col. 4, line 56 - col. 5, line 40. However, Lee is silent as to determining a destination address of the unicast memory request by "stripping off a set of high order bits from a memory address associated with the set of data" and "substituting a set of high order bits associated with one of the plurality of graphics devices" as recited in claim 1.

Therefore, Lee and Koga, either alone or in combination, fail to disclose or suggest each of the features recited in claim 1. Accordingly, withdrawal of the rejection of claim 1 under 35 U.S.C. §103(a) is respectfully requested. Furthermore, claims 2 and 4-9, which

depend from claim 1, should also be in condition for allowance at least due to their dependence from claim 1.

Claim 14 has also be amended to include limitations similar to those described above for claim 1. Therefore, claim 14 should also be allowable for the same rationale as claim 1. Furthermore, claims 15-22, which depend from claim 14, should also be condition for allowance at least due to their dependence from independent claim 14.

Claim 3

Claim 3 was rejected under 35 U.S.C. §103(a) as being unpatentable over Lee in view of Koga and in further view of U.S. Patent No. 5,790,849 to Crocket et al. (hereinafter "Crocket").

Claim 3 depends from claim 1, and the rejection of claim 3 is premised on the assertion that the combination of Lee and Koga discloses or suggests the features recited in claim 1 and Crocket discloses or suggests the remaining features of claim 3. As discussed above, however, the combination of Lee and Koga does not disclose or suggest all of the features recited in claim 1. As best understood, Crocket provides no teaching or suggestion that would remedy this deficiency. Therefore, the rejection is based on a flawed premise and cannot be maintained. Accordingly, Applicants respectfully request withdrawal of the rejection of claim 3.

Claim 10

Claim 10 was rejected under 35 U.S.C. §103(a) as being unpatentable over Lee in view of Koga and in further view of Bower.

Claim 10 depends from claim 1, and the rejection of claim 10 is premised on the assertion that the combination of Lee and Koga discloses or suggests the features recited in claim 1 and Bower discloses or suggests the remaining features of claim 10. As discussed above, however, the combination of Lee and Koga does not disclose or suggest all of the features recited in claim 1. As best understood, Bower provides no teaching or suggestion that would remedy this deficiency. Therefore, the rejection is based on a flawed premise and cannot be maintained. Accordingly, Applicants respectfully request withdrawal of the rejection of claim 10.

Claims 11-13

Claims 11-13 were rejected under 35 U.S.C. §103(a) as being unpatentable over Lee in view of Koga and in further view Meinert.

Claims 11-13 depend from claim 1, and the rejection of claims 11-13 is premised on the assertion that the combination of Lee and Koga discloses or suggests the features recited in claim 1 and Meinert discloses or suggests the remaining features of claims 11-13. As discussed above, however, the combination of Lee and Koga does not disclose or suggest all of the features recited in claim 1. As best understood, Meinert provides no teaching or suggestion that would remedy this deficiency. Therefore, the rejection is based on a flawed premise and cannot be maintained. Accordingly, Applicants respectfully request withdrawal of the rejection of claims 11-13.

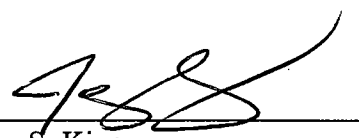
CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted,

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